

Integration of the NASA CAMVis and Multiscale Analysis Package (CAMVis-MAP) For Tropical Cyclone Climate Study

Completed Technology Project (2012 - 2015)



Project Introduction

Develop a scalable, multiscale analysis tool, based on the Coupled Advanced multiscale Modeling and Visualization system (CAMVis), to improve extended-range tropical cyclone (TC) prediction and consequently TC climate projection by enabling:

Understanding of the TC genesis processes, accompanying multiscale processes (both downscaling by large-scale events and upscaling by small-scale events), and their subsequent non-linear interactions

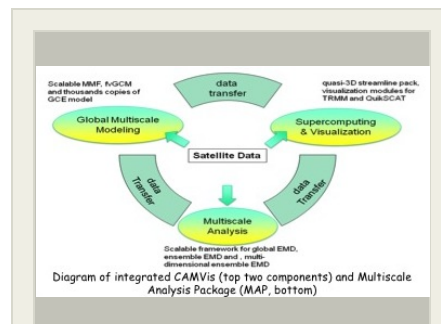
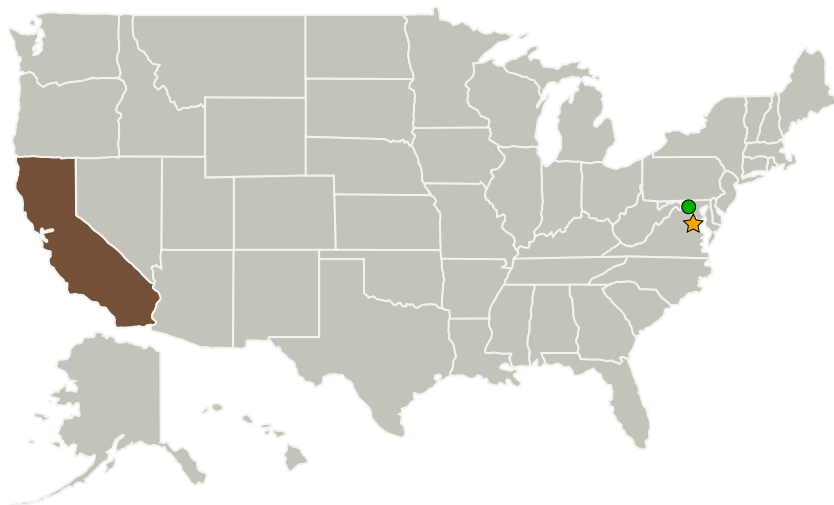
Discovery of hidden predictive relationships between meteorological and climatological events.

This project targets the ACE, PATH, SMAP, Next-generation scatterometer, and 3D-Winds missions.

Anticipated Benefits

SMAP

Primary U.S. Work Locations and Key Partners



Project Image Integration of the NASA CAMVis and Multiscale Analysis Package (CAMVis-MAP) For Tropical Cyclone Climate Study

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| Organizations Performing Work | Role | Type | Location |
|-------------------------------------|-------------------------|-------------|----------------------------------|
| ★ NASA Headquarters(HQ) | Lead Organization | NASA Center | Washington, District of Columbia |
| ● Goddard Space Flight Center(GSFC) | Supporting Organization | NASA Center | Greenbelt, Maryland |
| San Diego State University(SDSU) | Supporting Organization | Academia | San Diego, California |

Organizational Responsibility

Responsible Mission Directorate:

Science Mission Directorate (SMD)

Lead Center / Facility:

NASA Headquarters (HQ)

Responsible Program:

Earth Science

Project Management

Program Director:

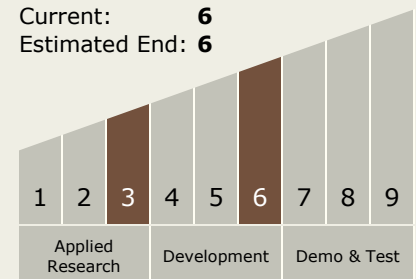
George J Komar

Principal Investigator:

Bo-wen Shen

Technology Maturity (TRL)

Start: 3
Current: 6
Estimated End: 6



Technology Areas

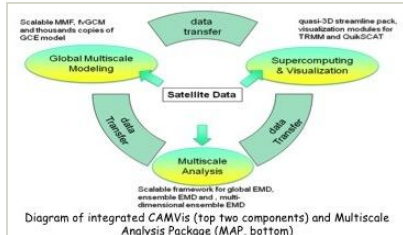
Primary:

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Primary U.S. Work Locations

California

Images



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Project Image Integration of the NASA CAMVis and Multiscale Analysis Package (CAMVis-MAP) For Tropical Cyclone Climate Study (<https://techport.nasa.gov/image/1608>)

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Technology Areas (cont.)

- TX11 Software, Modeling, Simulation, and Information Processing
 - └ TX11.2 Modeling
 - └ TX11.2.4 Science Modeling

Target Destination

Earth